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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/300,676	04/27/1999	ROBERT DOYLE	73744	4753
24628	7590	09/08/2004	EXAMINER	
WELSH & KATZ, LTD 120 S RIVERSIDE PLAZA 22ND FLOOR CHICAGO, IL 60606			DEANE JR, WILLIAM J	
			ART UNIT	PAPER NUMBER
			2642	

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/300,676	DOYLE ET AL.
Examiner	Art Unit	
William J Deane	2642	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 21 June 2004.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## **Disposition of Claims**

4)  Claim(s) 1-38 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5)  Claim(s) \_\_\_\_\_ is/are allowed.  
6)  Claim(s) 1-38 is/are rejected.  
7)  Claim(s) \_\_\_\_\_ is/are objected to.  
8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on 04/21/2015 are: a)  accepted or b)  objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other: \_\_\_\_\_.  
\_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1- 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No 5,828,747 (Fisher et al.).

With respect to claims 1, 14, 27 and 38, Fisher et al. teach a method of assigning agents of an automatic call distributor (ACD 101, Fig.1), to incoming call types handled by the ACD (note call queues 120, call vector 140 and Col. 3, lines 43 – 46), the method comprising:

determining a target occupancy matrix including a target occupancy for each agent for each call type of the plurality of call types (see Fig. 7). It should be noted that in Fisher et al., the call types correspond to agent skills (Col. 3, lines 34 – 38).

Therefore, if one provides a target occupancy based on agent skill one also has a target occupancy based on call type. If applicant argues this point, then the Examiner would argue that it would have been obvious to one of ordinary skill in the art, based on Fisher's disclosure of a target occupancy based on agent skill to have also provided a target occupancy based on call types because agent skills are equated to call types.

processing the call of a first type of the types determined in the target occupancy matrix; and assigning the call to an agent of the agents of the ACD with the largest

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relative difference between an actual occupancy of calls of the first type handled by the agent and the target occupancy of calls of the first type determined for the agent in the target occupancy matrix. In particular, note target occupancy data 702 in Fig. 7 (see Abstract, Col. 2, lines 13 – 23, Col. 2, lines 41 – 51 and Col. 6, lines 9 - 19).

With respect to claims 2, 15 and 28, and semi-permanent data (agent proficiency) note Col. 3, lines 54 – 56. With respect to permanent data (skill types) note Col. 3, lines 36 – 42. With respect to variable data (target total agent occupancy for each agent) note Col. 5, lines 15 – 34 and Fig. 7. In addition, compare Page 8, lines 7 – 22 of the instant application with Figs. 2 and 7, Col. 3, line 36 – Col. 4, line 12 and Col. 5, lines 15 – 34 of the Fisher et al. reference.

With respect to claims 3 - 4, 11, 16 - 17 and 29 -30, note permanent data (skill types) in the target matrix in Fig. 7. In addition, compare Page 6, lines 10 – 17 of the instant application with Col. 2, lines 1 – 4 of the reference.

With respect to claims 5 - 6, 18 – 19 and 31 – 32, note Fig. 2, Col. 3, lines 54 – 56 and Col. 4, lines 4 – 7 and lines 37 - 42.

With respect to claims 7, 20 and 30, note Col. 5, lines 21 – 24. Since the data 700 – 701 is pre-administered, the examiner believes this data is manually entered.

With respect to claims 8 – 14, 21 – 26 and 31 - 37, note Col. 2, lines 53 – 57, Col. 3, lines 51 – 56, Col. 4, line 57 – Col. 5, line 51. It should be noted that the target matrix includes, among other things actual occupancies, target occupancies, skills and levels of skills. Through the above Cols., it is clear that at least the actual occupancies change and therefore, the target matrix changes. With respect to a call processor, note

that call vector 140. With respect to the call matrix processor, note call-distribution function 150.

With respect to the repair processor, as best as can be determined, the repair processor concerns itself with iteratively changing the target matrix to actual occupancy in line with the target matrix (that is what Fisher does, see Abstract)

With respect to the selection processor, as best as can be determined, it appears that this processor selects agents based on skill or other data (note agent queues 130).

The objective function processor determines the effect of call allocation on the target matrix, such is taught by Fisher et al. (see Fig. 6).

With respect to the call distributor, note ACD 150.

#### ***Response to Arguments***

Applicant's arguments filed 06/21/2004 have been fully considered but are not deemed persuasive to any error in the rejection above.

Applicant argues that Fisher et al. provides a target occupancy based upon agent skill rather than call type. This may or may not be so, however assuming arguendo that applicant is right, it should be noted that in Fisher et al. the call types correspond to agent skills (Col. 3, lines 34 – 38). Therefore, if one provides a target occupancy based on agent skill one also has a target occupancy based on call type. If applicant argues this point, then the Examiner would argue that it would have been obvious to one of ordinary skill in the art, based on Fisher's disclosure of a target occupancy based on agent skill to have also provided a target occupancy based on call types because agent skills are equated to call types.

Applicant argues over the "largest relative difference between the target occupancy and actual occupancy". Again the Examiner points to the Abstract, among other areas cited above. In addition, The Examiner notes Applicant's Remarks, in particularly page 20, lines 2 – 6. Note, "...Fisher et al. would not necessarily..." It appears the Fisher et al, at least at times will read on the noted limitation.

With respect to Applicant's arguments on page 20, starting with the repair processor and ending on page 21, with the objective function, it is noted that it is the Examiner's comments on the "objective function" where applicant characterizes the Examiner as being "clearly mistaken". Since the other arguments only say that the Examiner is believed to be mistaken; the Examiner will concentrate the following on the objective function. The Examiner, in this case, does not see the difference between applicants comments on "accommodate changes in call loading" and Fisher's equitable distribution. This is particularly true in light of the fact that call types go to agents with different skills and different skill levels within those skills. Applicant's comments seemed to be based on the idea that there are no levels within the skills agents have. The call types are distributed on the basis of many criteria, obviously there is an objective function that evaluates the new matrix over the previous matrix as broadly claimed by Applicant.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bill Deane whose telephone number is (703) 306-5838. In addition, facsimile transmissions should be directed to Bill Deane at facsimile number (703) 872-9306.

05Sep04



**WILLIAM J. DEANE, JR.**  
**PRIMARY EXAMINER**